Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

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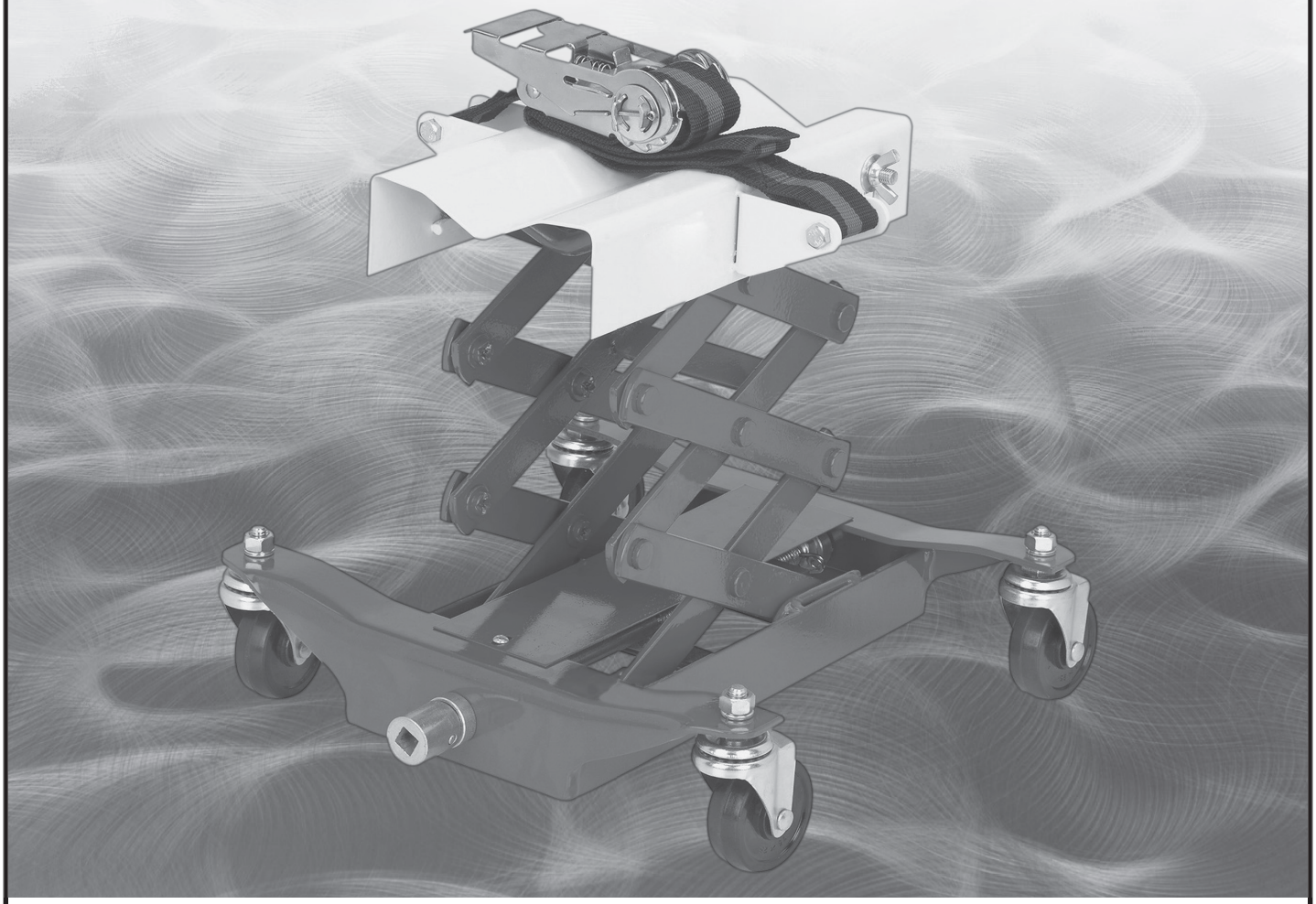
ITEM 61232

450 Lb. Low Lift
Transmission Jack



Note: **This tool requires a 1/2" drive ratchet or breaker bar to operate (neither one included).**

Visit our website at: http://www.harborfreight.com
Email our technical support at: tech@harborfreight.com

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-800-444-3353 as soon as possible.

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No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools.
Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein. Tools required for assembly and service may not be included.

⚠WARNING

Read this material before using this product. Failure to do so can result in serious injury. SAVE THIS MANUAL.

Specifications

Maximum Load Capacity	450 lbs.
Maximum height	23-1/4"
Minimum height	7-1/4"

Saddle tilt	5°
Cradle size	6-7/8" x 13"

WARNING SYMBOLS AND DEFINITIONS	
⚠	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
⚠ DANGER	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
⚠ WARNING	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
⚠ CAUTION	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
NOTICE CAUTION	Addresses practices not related to personal injury.

IMPORTANT SAFETY INFORMATION

⚠ WARNING

Read all safety warnings and instructions.
Save all warnings and instructions for future reference.
Failure to heed these markings may result in personal injury and/or property damage:

1. Study, understand, and follow all instructions before operating this device.
2. Do not exceed 450 lb. rated capacity.
3. Use only on hard, level surfaces.
4. Adequately support the vehicle before starting repairs.
5. Use of this product is limited to the removal, installation, and transportation in the lowered position, of transmissions, transfer cases, and transaxles.
6. Wear ANSI-approved safety goggles and heavy-duty work gloves during use.
7. Keep clear of load while lifting and lowering.
8. Lower load slowly.
9. Do not use for aircraft purposes.
10. Inspect before every use; do not use if parts are loose or damaged.
11. Do not alter the jack or use attachments and/or adapters that are not supplied by the manufacturer. This tool requires a 1/2” Drive Ratchet or Breaker Bar to operate (neither one included).
12. The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors, which cannot be built into this product, but must be supplied by the operator.
13. The brass components of this product contain lead, a chemical known to the State of California to cause cancer, birth defects (or other reproductive harm). (California Health & Safety Code § 25249.5, et seq.)
14. Store idle equipment. When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.

⚠ SAVE THESE INSTRUCTIONS.

Setup

Read the ENTIRE IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

⚠WARNING **TO PREVENT SERIOUS INJURY:**
Remove load from the jack before any procedure on this page.

Note: For additional information regarding the parts listed in the following pages, refer to *Parts List and Diagram* on page 7.

1. Locate set of four Casters (2), four M12 Nuts (4) and four M12 Washers (3).
2. Insert a Caster in each opening in Base (1).
3. Place a Washer (3) and Nut (4) over the threaded end of each Caster Assembly. Tighten securely. **See Figure A.**

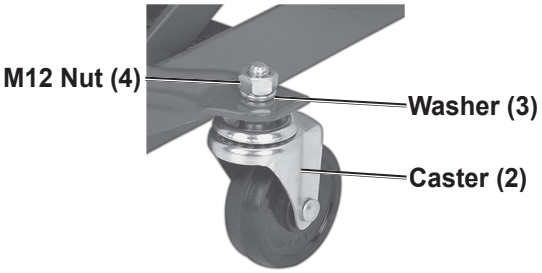

Figure A: Caster Assembly

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Functions

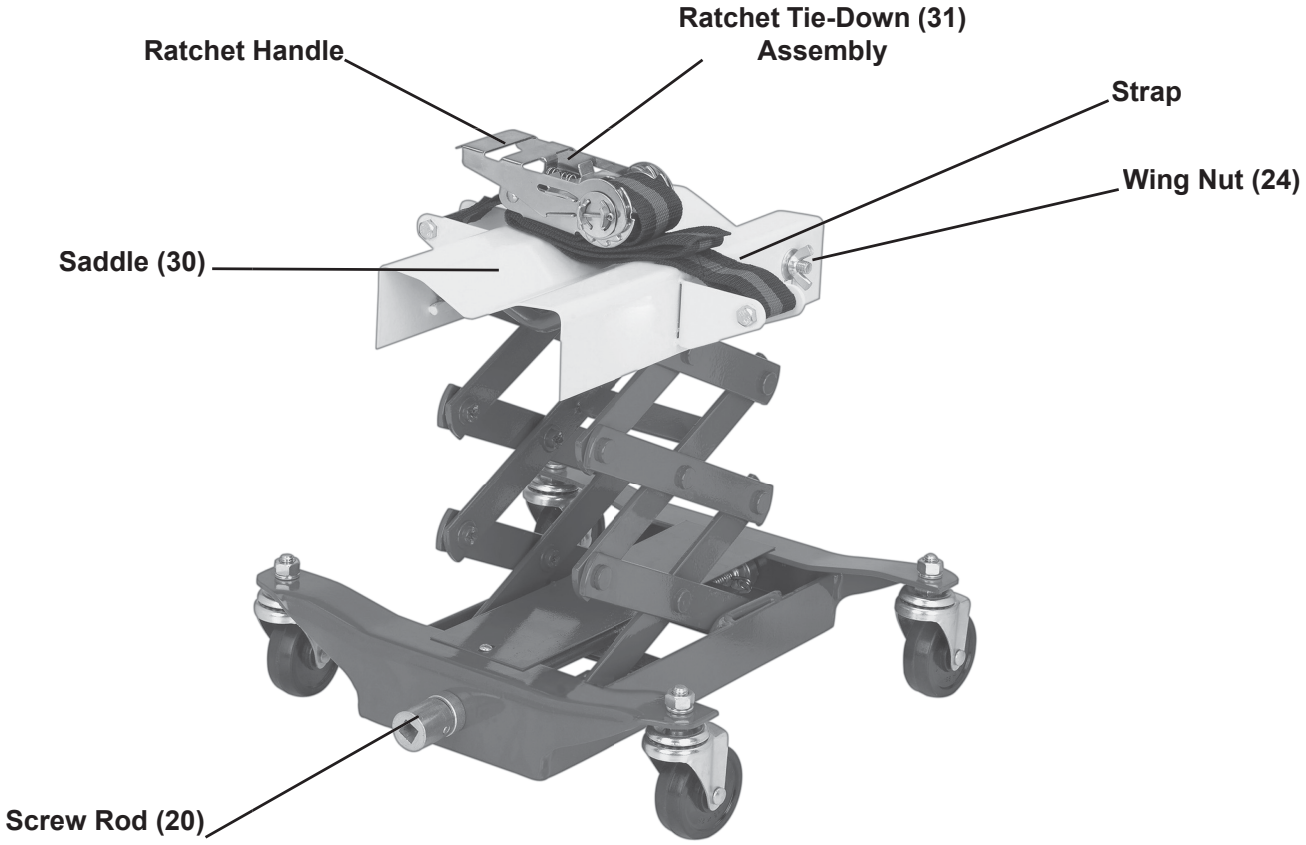

Figure B

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Read ENTIRE IMPORTANT SAFETY INFORMATION section at beginning of this manual including all text under subheadings therein before set up or use of this product.

Removing a Transmission

1. Once the vehicle is raised and secured on a lift, clear the area underneath the vehicle of people and tools.
2. Roll the Jack under the transmission.
3. Engage a 1/2" Drive Ratchet or Breaker Bar (neither one included) in the square Socket in the Screw Rod. Rotate the Screw Rod clockwise. Raise the Jack until the Saddle nearly contacts the underside of the transmission.
4. Position the Jack directly under the center of gravity of the transmission. Assure a good contact between the Saddle and the transmission. The transmission must be properly supported and balanced when removed from the vehicle and resting on the Jack.
5. Loosen the Wing Nuts. Rotate the Screw Rod clockwise and raise the Jack further until the Saddle presses slightly against the transmission.
6. To secure the transmission to the Saddle pass the Ratchet Tie-Down over the top of the transmission and secure it. See **Ratchet Tie-Down Operation** below.
7. Check that the Ratchet Tie-Down is tight and the transmission is secure on the Saddle. Tighten the Wing Nuts and raise the Jack until the transmission's weight is supported by it.
8. Remove bolts and fittings attaching the transmission to the vehicle, as recommended by the vehicle's repair instructions.
9. Turn the Screw Rod counterclockwise slowly and lower transmission slightly. Recheck that the transmission is secure and firmly strapped to the Saddle. Make any necessary adjustments.
10. When it is safe, lower the transmission fully by turning the Screw Rod counterclockwise. For safety, two people should be working together to perform these operations.
11. Stabilize the transmission on the Jack and roll the Jack from under the vehicle to the repair work location. Have an assistant help to lower and move the transmission.

Ratchet Tie-Down Operation

The Ratchet Tie-Down secures the transmission to the Jack to prevent the transmission from falling. **Securing the Ratchet Tie-Down:** To secure the transmission to the Jack, first pass the Strap over the top of the transmission. The Strap must not twist or press on any part of the transmission that might be damaged, such as the speedometer cable fitting.

1. Pass the free end of the Strap through the Ratchet Tie-Down behind the Reel, then through the Slot in the Reel. **See Figure C.**

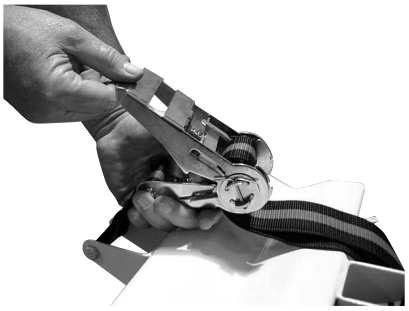


Figure C: Ratchet Tie-Down Use

2. Tighten the Strap by pressing the Ratchet Handle down repeatedly. Check that the Strap and Ratchet Tie-Down are securely fastened before continuing.
3. **Removing the Ratchet Tie-Down:** When preparing to remove the Ratchet Tie-Down, have an assistant stabilize the transmission on the Jack to prevent it from falling.
4. To remove the Strap, pull release tab A away from the spool. Swing the upper Handle wide open. The Handle should rest on the raised portion of the flanges. **See Figure D.**

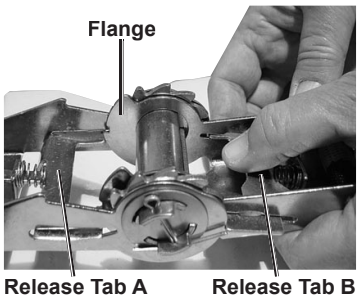


Figure D: Releasing the Strap

CAUTION! Keep your fingers clear of the spool when releasing the Ratchet; it will rotate as the strap is released.

5. When the Strap is loose, pull the end free. Remove the Strap from its position around the transmission. Have an assistant stabilize the transmission safely.

Replacing a Transmission

1. Check that the transmission is balanced on the Saddle and that the Ratchet Tie-Down is securing the load on the Jack. Check that the Wing Nuts are tight.
2. Move the Jack to line up the transmission properly with its connection points. Have an assistant stabilize the load while moving the Jack.
3. Use a 1/2" Drive Ratchet or Breaker Bar (neither one included) to turn the Screw Rod clockwise. Slowly and gradually raise the Jack, while guiding it into place.
4. Secure the transmission into place using its hardware.
5. Double-check all work to be sure the transmission is securely installed.
6. Release the Ratchet Tie-Down and remove it.
7. Clear the area near the Jack. Turn the Screw Rod counterclockwise to lower the Jack.
8. Move the Jack clear of the vehicle.

Maintenance

Procedures not specifically explained in this manual must be performed only by a qualified technician.

⚠WARNING

TO PREVENT SERIOUS INJURY FROM TOOL FAILURE:
Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

1. **BEFORE EACH USE,** inspect the general condition of the equipment. Check for:
   - loose hardware,
   - misalignment or binding of moving parts,
   - visibly leaking hydraulic fluid,
   - cracked or broken parts, and
   - any other condition that may affect its safe operation.
2. **Before each use and after the inspection, thoroughly test the Jack for proper operation prior to its actual use.**
3. Occasionally lubricate the mechanical parts of the Jack, such as the Screw Rod and hinge pins of the Adjustable Frame with heavy oil or grease.
4. Wipe dry with a clean cloth. Then, store the Jack in a safe, dry location out of reach of children and other non-authorized people.

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

Record Product's Serial Number Here:_____

Note: If product has no serial number, record month and year of purchase instead.

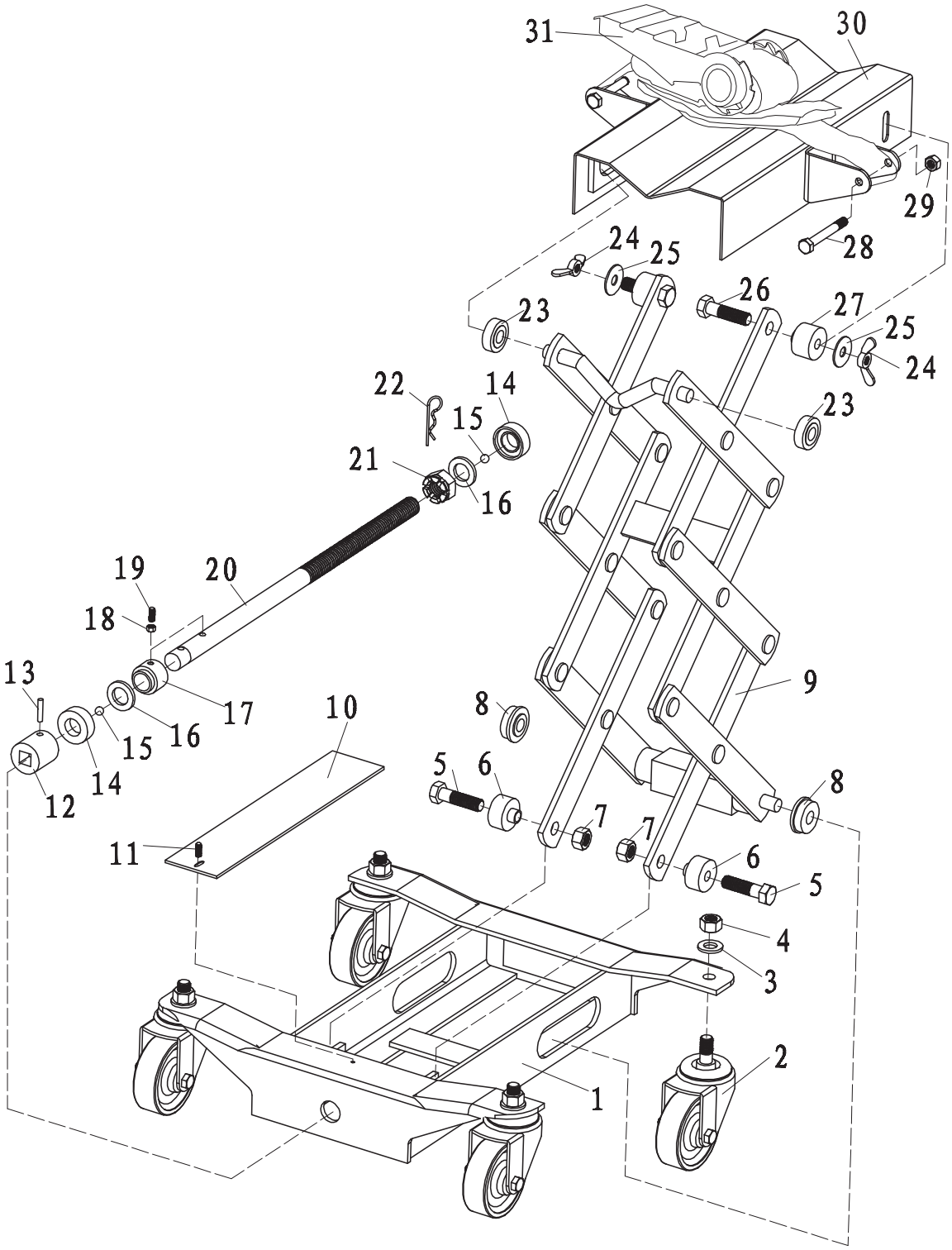
Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

Parts List and Diagram

Part	Description	Qty
1	Base	1
2	Caster	4
3	Washer M12	4
4	Nut M12	4
5	Nut M10	2
6	Bushing	2
7	Nut M10	2
8	Wheel	2
9	Adjustable Frame	1
10	Cover Plate	1
11	Screw M6	1

Part	Description	Qty
12	Socket	1
13	Pin	1
14	Bearing	2
15	Steel Ball 4	38
16	Bearing Washer	2
17	Bushing	1
18	Nut M8	1
19	Screw M8	1
20	Screw Rod	1
21	One-way Nut	1
22	Retaining Clip	1

Part	Description	Qty
23	Wheel	2
24	Wing Nut M10	2
25	Washer 10	2
26	Screw M10	2
27	Bushing	2
28	Screw M8	2
29	Nut M8	2
30	Saddle	1
31	Ratchet Tie-Down	1



Limited 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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